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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,451

09/14/2005

Kenji Hayashi

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SUGHRUE MION, PLLC  
2100 PENNSYLVANIA AVENUE, N.W.  
SUITE 800  
WASHINGTON, DC 20037

EXAMINER

TRAN, PHUC H

ART UNIT

PAPER NUMBER

2616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/549,451	HAYASHI, KENJI	
	<b>Examiner</b>	<b>Art Unit</b>	
	PHUC TRAN	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Regarding to claim 1, the step “applying a positive voltage from said control circuit VC3” is not described the function of applying the positive voltage for and the resulted of applying the positive voltage.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2 are rejected under 35 U.S.C. 102(e) as being anticipated by Fukamachi et al. (U.S. Patent No. 7057472).

- With respect to claims 1-2, Fukamachi teaches a high-frequency switching module (e.g. Fig. 11) comprising a diplexer comprising first and second filter circuits F1, F2 (e.g. element Dip

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and block in fig. 10) for dividing signals received by an antenna (e.g. Ant in fig. 10) to a receiving signal of a first transmitting/receiving system and a receiving signal of second and third transmitting/receiving systems, a first switching circuit SW1 disposed downstream of said first filter circuit F1 for switching a transmitting circuit TX1 and a receiving circuit RX1 of said first transmitting/receiving system by voltage applied from a control circuit VC1 (e.g. block SW1 with VC1 for transmits and receive from EGSM TX and Rx), and a second switching circuit SW2 disposed downstream of said second filter circuit F2 for switching a transmitting circuit TX2 of said second and third transmitting/receiving systems, a receiving circuit RX2 of said second transmitting/receiving system and a receiving circuit RX3 of said third transmitting/receiving system by voltage applied from control circuits VC2, VC3 (e.g. block SW2 shows the VC2, VC3 and DCS Rx, W-CDMA and DCS Tx);

said first switching circuit SW1 comprising an input/output terminal IP1 (e.g. port between SW1 and Dip in Fig. 10) for inputting a receiving signal of said first transmitting/receiving system and outputting a transmitting signal, a connecting terminal P13 (e.g. port at Tx in Fig. 10) for inputting a transmitting signal from the transmitting circuit TX1 of said first transmitting/receiving system, a connecting terminal P16 (e.g. Rx port in Fig. 10) for outputting a receiving signal of the first transmitting/receiving system to a receiving circuit RX1 (e.g. Rx in Fig. 10), a first diode DG1 disposed between said input/output terminal IP1 and said connecting terminal P13 (e.g. D1 in Fig. 10), a first inductance element LG1 disposed between said connecting terminal P13 and a ground (e.g. L5 in Fig. 10), a second inductance element LG2 disposed between said input/output terminal IP1 and said connecting terminal P16 (e.g. L6 in

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Fig. 10), and a second diode DG2 disposed between said connecting terminal P16 and the ground (e.g. D2 in Fig. 10);

said second switching circuit SW2 comprising an input/output terminal IP2 (e.g. between NF and SW2 in Fig. 10) for inputting a receiving signal of said second and third transmitting/receiving systems and outputting a transmitting signal (e.g. Tx and Rx in Fig. 10), a connecting terminal P7 for inputting a transmitting signal from a transmitting circuit TX2 (e.g. port at Tx in Fig. 10) of the second and third transmitting/receiving systems, an output terminal IP3 for outputting a receiving signal of the second and third transmitting/receiving systems, a connecting terminal P9 for outputting a receiving signal of the second transmitting/receiving system to a receiving circuit RX2 (e.g. the connection shows in Fig. 10), a connecting terminal P10 for outputting a receiving signal of said third transmitting/receiving system to a receiving circuit RX3 (e.g. port DCS Rx in Fig. 10), a third diode DP1 disposed between said input/output terminal IP2 and said connecting terminal P7 (e.g. D3 in Fig. 10), a third inductance element LP1 disposed between said connecting terminal P7 and the ground (e.g. L7 in Fig. 10), a fourth inductance element LP2 disposed between said input/output terminal IP2 and said output terminal IP3 (e.g. L8 in Fig. 10), a fourth diode DP2 disposed between said output terminal IP3 and the ground (e.g. D4 in Fig. 10), a fifth inductance element LD1 disposed between said output terminal IP3 and said connecting terminal P9 (e.g. L10 in Fig. 10), a fifth diode DD1 disposed between said connecting terminal P9 and the ground (e.g. D6 in Fig. 10), a sixth diode DD2 disposed between said output terminal IP3 and a connecting terminal P10 (e.g. D5 in Fig. 10), and a sixth inductance element LD2 disposed between said connecting terminal P10 and the ground (e.g. L9 in fig. 10); and the transmitting circuit TX1 of said first transmitting/receiving

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system being connected to said input/output terminal IP11 by turning on said first diode DG1 (D1 and D2 in Fig. 10), said second diode DG2, said fifth diode DD1 and said sixth diode DD2 (D3 and D5 in Fig. 10).

### *Allowable Subject Matter*

Claims 3-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC TRAN whose telephone number is (571)272-3172. The examiner can normally be reached on 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on 5712723179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Phuc H. Tran/  
Examiner, Art Unit 2616